IN THE CLAIMS:

Please amend the claims as follows. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) An image processing apparatus comprising:

attribute information generation means for generating attribute information indicating an attribute of an image in correspondence with a command that represents the image;

bitmap data generation means for generating bitmap image data by rendering the command;

attribute synthesis means for, if first and second bitmap image data generated in accordance with first and second commands overlap each other, synthesizing attribute information at ~~the~~ an overlapped ~~position~~ area of the first bitmap image data and attribute information at ~~the~~ an overlapped ~~position~~ area of the second bitmap image data in accordance with a predetermined rule; and

image processing means for performing an image process on the bitmap image data in accordance with the attribute information.

2. (Original) The apparatus according to claim 1, wherein the image process is a resolution converting process.

3. (Original) The apparatus according to claim 1, wherein said bitmap data generation means generates bitmap image data by overwriting a rendered bitmap image.

4. (Previously Presented) The apparatus according to claim 1, wherein the image process is at least one of a dither process and an under color removal process.

5. (Original) The apparatus according to claim 1, wherein the image process is one of a filter process and compression process.

6. (Previously Presented) The apparatus according to claim 1, wherein the predetermined rule is one of an AND, OR, overwrite priority, and background priority using the attribute information of the first bitmap image and the attribute information of the second bitmap image.

7. (Original) The apparatus according to claim 1, further comprising one of laser print means and ink-jet print means for printing the image that has undergone the image process.

8. (Original) The apparatus according to claim 1, wherein the attribute information is generated for each pixel and has at least one of vector, character, and color attributes.

9. (Currently Amended) An image processing apparatus comprising:

discrimination means for discriminating a type of object in an image to be rendered;

determination means for determining ~~the presence/absence of synthesis of the discriminated object~~ whether or not the discriminated object is in condition to be synthesized with other objects;

first synthesis means for synthesizing objects in accordance with the determination result;

second synthesis means for synthesizing object type information of objects discriminated by said discrimination means; and

processing means for appending object type information synthesized by said second synthesis means to a rendering result obtained by rendering the object to be rendered in units of pixels.

10. (Original) The apparatus according to claim 9, wherein the type of object to be rendered includes information indicating if an object is a bitmap or a vector graphic.

11. (Original) The apparatus according to claim 9, wherein the type of object to be rendered includes information indicating if an object is a color or monochrome object.

12. (Original) The apparatus according to claim 9, wherein the type of object to be rendered includes information indicating if an object is a character or an object other than the character.

13. (Original) The apparatus according to claim 9, wherein the type of object to be rendered includes information indicating if an object is a tone or resolution priority object.

14. (Previously Presented) The apparatus according to claim 9, further comprising image processing means for performing an image process on data of the rendering result in accordance with the information of the type of object.

15. (Original) The apparatus according to claim 14, wherein the image process includes a binarization process, filter process, and black character extraction process.

16. (Original) The apparatus according to claim 15, wherein the image process outputs rendered data using black alone when it is determined in accordance with information of the object that the object is a black character.

17. (Previously Presented) The apparatus according to claim 9, wherein said second synthesis means synthesizes the object type information of the objects in accordance with one of synthesis modes including OR, AND, XOR and α blend.

18. (Previously Presented) The apparatus according to claim 9, wherein the synthesis of first and second synthesis means is inhibited upon receiving an inhibition command of the synthesis process.

19. (Original) The apparatus according to claim 18, wherein the inhibition command is input by a printer driver of a host computer connected to said image processing apparatus.

20. (Original) The apparatus according to claim 9, wherein the synthesis is done for at least two different objects.

21. (Currently Amended) An image processing apparatus for processing and outputting input image data, comprising:

input means for inputting image data composed of a plurality of objects, the objects being represented by at least a command for a character/line or a command for a bitmap image;

rendering means for rendering the objects into bitmap image data;

generation means for generating attribute map information indicating a configuration of the bitmap image data on the basis of the bitmap image data rendered by

said rendering means and attributes of the objects, said attributes being determined based on the type of the command; and

             determination means for determining a range of the bitmap image data, which is to undergo an image area discrimination of further discriminating a character/line image region, on the basis of the attribute map information which is generated, according to the command for the bitmap image, by said generation means.

             22. (Canceled)

             23. (Original) The apparatus according to claim 21, wherein the attribute map information includes at least a vector flag and bitmap flag.

             24. (Original) The apparatus according to claim 21, wherein the attribute map information is generated in correspondence with two-dimensional coordinate positions of the bitmap image data.

             25. (Original) The apparatus according to claim 21, wherein said generation means comprises an attribute map memory for storing the generated attribute map information.

             26. (Original) The apparatus. according to claim 21, wherein when the bitmap image data is managed in units of R, G, and B planes, the attribute map information is managed as an attribute map plane added to the R, G, and B planes.

             27. (Original) The apparatus according to claim 21, wherein when R, G, and B data of the bitmap image data are managed in units of pixels, the attribute map information is managed while being appended to each pixel.

28. (Original) The apparatus according to claim 21, wherein when the bitmap image data is managed in units of R, G, and B planes, the attribute map information is managed while being appended to pixels of one or a plurality of the R, G, and B planes.

29. (Original) The apparatus according to claim 21, wherein when R, G, and B data of the bitmap image data are managed in units of pixels, the attribute map information is managed while being appended to color information of one or a plurality of R, G, and B data in units of pixels.

30. (Original) The apparatus according to claim 21, wherein said determination means comprises image area separation processing means for performing an image area separation process for the bitmap image data.

31. (Original) The apparatus according to claim 21, wherein said determination means updates the attribute map information on the basis of a processing result of said image area separation processing means.

32. (Currently Amended) An image processing method comprising:
an attribute information generation step of generating attribute information indicating an attribute of an image in correspondence with a command that represents the image;
a bitmap data generation step of generating bitmap image data by rendering the command;
an attribute synthesis step of, if first and second bitmap image data generated in accordance with first and second command overlap each other, synthesizing attribute information at the an overlapped position area of the first bitmap image data and

attribute information at the an overlapped position area of the second bitmap image data in accordance with a predetermined rule; and

an image processing step of performing an image process on the bitmap image data in accordance with the attribute information.

33. (Currently Amended) A storage medium on which is stored stores program codes which are loaded and executed by a computer to make the computer function as an image processing apparatus, said program codes comprising codes to perform the steps of:

an attribute information generation step of generating attribute information indicating an attribute of an image in correspondence with a command that represents the image;

a bitmap data generation step of generating bitmap image data by rendering the command;

an attribute synthesis step of, if first and second bitmap image data generated in accordance with first and second commands overlap each other, synthesizing attribute information at the an overlapped position area of the first bitmap image data and attribute information at the an overlapped position area of the second bitmap image data in accordance with a predetermined rule; and

an image processing step of performing an image process on the bitmap image data in accordance with the attribute information.

34. (Currently Amended) An image processing method comprising:

a discrimination step of discriminating a type of object in an image to be rendered;

a determination step of determining ~~the presence/absence of synthesis of the discriminated object~~ whether or not the discriminated object is in condition to be synthesized with other objects;

a first synthesis step of synthesizing objects in accordance with the determination result;

a second synthesis step of synthesizing object type information of objects discriminated by the discrimination step; and

a processing step of appending object type information synthesized by the second synthesis step to a rendering result obtained by rendering the object to be rendered in units of pixels.

35. (Currently Amended) A storage medium on which is stored ~~stores~~ program codes which are loaded and executed by a computer to make the computer function as an image processing apparatus, said program codes comprising codes to perform the steps of:

a discrimination step of discriminating a type of object in an image to be rendered;

a determination step of determining ~~the presence/absence of synthesis of the discriminated object~~ whether or not the discriminated object is in condition to be synthesized with other objects;

a first synthesis step of synthesizing objects in accordance with the determination result;

a second synthesis step of synthesizing object type information of objects discriminated by the discrimination step; and

a processing step of appending object type information synthesized by the second synthesis step to a rendering result obtained by rendering the object to be rendered in units of pixels.

36. (Currently Amended) An image processing method for processing and outputting input image data, comprising:

an input step of inputting image data composed of a plurality of objects, the objects being represented by at least a command for a character/line or a command for a bitmap image;

a rendering step of rendering the objects into bitmap image data;

a generation step of generating attribute map information indicating a configuration of the bitmap image data on the basis of the bitmap image data rendered in the rendering step and attributes of the objects, said attribute being determined based on the type of the command; and

a determination step of determining a range of the bitmap image data, which is to undergo an image area discrimination of further discriminating a character/line image region, on the basis of the attribute map information which is generated, according to the command for the bitmap image, in the generation step.

37. (Currently Amended) A storage medium on which is stored stores program codes which are loaded and executed by a computer to make the computer function to perform an image process for processing and outputting input image data, the program codes comprising codes to perform the steps of:

an input step of inputting image data composed of a plurality of objects, the objects being represented by at least a command for a character/line or a command for a bitmap image;

a rendering step of rendering the objects into bitmap image data;

a generation step of generating attribute map information indicating a configuration of the bitmap image data on the basis of the bitmap image data rendered in the rendering step and attributes of the objects, said attribute being determined based on the type of the command; and

a determination step of determining a range of the bitmap image data which is to undergo an image area discrimination of <u>further</u> discriminating a character/line image region, on the basis of the attribute map information <u>which is</u> generated, <u>according to the command for the bitmap image,</u> in the generation step.